## UNITED STATES DISTRICT COURT DISTRICT OF NEW HAMPSHIRE

BAE SYSTEMS INFORMATION AND ELECTRONICS SYSTEMS INTEGRATION INC.

Plaintiff,

Civil Action No. 10-CV-370-LM

v.

SPACEKEY COMPONENTS, INC.

Defendant.

## DECLARATION OF DAVID A. REA IN SUPPORT OF PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT ON DEFENDANT'S COUNTERCLAIMS AT COUNTS THREE AND FOUR

## I, David A. Rea, declare as follows:

- 1. I am the Business Area Manager for Microelectronics at BAE Systems
  Information And Electronics Systems Integration Inc. ("BAE Systems") and I have personal knowledge of facts material to this action.
- 2. BAE Systems sells specialized goods and services to buyers in the defense, security and aerospace industries.
- 3. BAE Systems sells its goods and services pursuant to Terms of Sale that it enters into with its buyers. A true and accurate copy of BAE Systems' standard Terms of Sale are submitted as Exhibit A hereto.
- 4. In 2004, BAE Systems entered into an agreement with SpaceKey Components, Inc. entitled "Domestic Business Development Consultant Agreement" ("Agreement"). A true and accurate copy of the Agreement is submitted as Exhibit B hereto.

- 5. Under the Agreement, SpaceKey agreed to advise and assist BAE Systems in identifying suitable, financially qualified buyers of BAE Systems' products in the States of Connecticut and Maryland and in the Commonwealth of Virginia. In exchange, BAE Systems agreed to pay SpaceKey a fee equal to five per cent (5%) of the Net Sales Prices of Products sold to buyers in the Territory identified by SpaceKey. BAE Systems retained sole discretion to accept the purchase orders submitted by the buyers identified by SpaceKey and SpaceKey's fee only became due once BAE Systems accepted the purchase orders and received full payment from the buyers.
- 6. In performing the Agreement, SpaceKey fell into a practice of delivering purchase orders to BAE Systems in which it identified itself as the "financially qualified buyer" for BAE Systems products. SpaceKey would take delivery of the products from BAE Systems pursuant to BAE Systems' Terms of Sale and resell the products to end users at a mark-up. In addition to the profit it realized by acting as a distributor of BAE Systems' products SpaceKey also charged its fee of 5% of the Net Sales Price of each contract as stipulated in the Agreement.
- 7. In this way SpaceKey played two roles in the transaction with BAE Systems: one as BAE Systems' consultant and one as BAE System's customer.
- 8. Field programmable gate arrays ("FPGAs") are semiconductor integrated circuits (often called chips) that perform certain user-specified logic functions. FPGAs are often used in satellites and other space equipment. Some FPGAs are designed and manufactured to withstand the rigors of space travel, including the increased radiation exposure that occurs beyond the near-earth atmosphere.
- 9. At one time BAE Systems manufactured two FPGA models under agreement for Actel Corporation, which Actel Corporation marketed and sold as the RH1280 and the RH1020.

- 10. Actel Corporation stopped offering the RH1280 and RH1020 for sale in 2006 as they had exhausted the available inventory.
- 11. Despite Actel Corporation's decision to stop offering the FPGAs, a demand still remained for the RH1280 and RH1020. This was because a number of government and commercial satellite programs still used legacy satellite designs that incorporated the RH1280 and RH1020 FPGAs.
- 12. In response to this demand, BAE Systems licensed from Actel Corporation the right to manufacture and sell its own version of the RH1280 and RH1020 FPGAs.
- 13. In 2007, BAE Systems announced that it would begin manufacturing new FPGAs to replace the Actel Corporation RH1280 and RH1020. BAE Systems designated its new FPGAs as the RH1280B and RH1020B. BAE Systems added the "B" to indicate that its FPGAs were distinct from the Actel Corporation FPGAs once sold.
- 14. BAE Systems sells several versions of the RH1280B and RH1020B FPGAs. For example, BAE Systems offers an engineering version of the FPGAs that allows end users to integrate, verify, and electrically qualify the FPGA for the particular use intended. The engineering FPGAs do not necessarily withstand radiation effects or meet other performance standards as they are not intended for actual use in a deployed system. The "flight" version of the FPGAs, by contrast, meet performance specifications for use in space. Flight FPGAs are the actual parts deployed.
- 15. Between July 2008 and January 2010, BAE Systems delivered to SpaceKey a total of 800 RH1280B FPGAs. The invoice dates, quantity, description and selling price for the FPGAs BAE Systems delivered to SpaceKey are summarized in Table A:

**TABLE A** 

Invoice Date	Quantity	Description	Price
July 24, 2008	165	Engineering RH1280B Part No. 197A806-23	\$247,500.00
June 26, 2009	50	Flight RH1280B Part No. 197A806-24	\$425,000.00
	1	Final Test Data	\$2,500.00
August 19, 2009	50	Flight RH1280B Part No. 197A806-24	\$425,000.00
December 3, 2009	335	Flight RH1280B Part No. 197A806-24	\$3,015,000.00
December 16, 2009	100	Flight RH1280B Part No. 197A806-24	\$900,000.00
January 12, 2010	100	Flight RH1280B Part No. 197A806-24	\$900,000.00
March 4, 2010	1	Quality Conformance Inspection ("QCI") report <sup>1</sup>	\$2,500.00
Total FPGAs	800	Total Price	\$5,917,500.00

- 16. True copies of the invoices BAE Systems furnished to SpaceKey with the deliveries identified in Table A are submitted as Exhibit C hereto.
- 17. BAE Systems completed the deliveries identified in Table A pursuant to a purchase order SpaceKey submitted. SpaceKey originally submitted the purchase order in January 2008 and identified it as SKC12508.
- 18. Between July 2008 and June 2009, SpaceKey submitted several revised versions of purchase order SKC12508. SpaceKey identified those revised purchase orders as

<sup>&</sup>lt;sup>1</sup> The QCI report was furnished at SpaceKey's request to confirm that all delivered FPGAs met certain manufacturing and performance specifications.

SKC12508(A), SKC12508(B), SKC12508(C) and SKC12508(D). These revised purchase orders generally involved changes to the number of parts to be delivered by BAE Systems, dates of delivery for the parts, and changes to specifications for the parts.

- 19. True and accurate copies of purchase order SKC12508, SKC12508(A), SKC12508(B), SKC12508(C), and SKC12508(D) are submitted hereto as Exhibits D, E, F, G and H, respectively.
- 20. SpaceKey expressly agreed in SKC12508 and in all revisions to the purchase order that "BAE Systems Terms and Conditions apply."
- 21. BAE Systems records show that SKC12508(D), which SpaceKey submitted in June 2009, was the last and final version of the purchase order.
- 22. Only slight differences distinguish SKC12508(D) from SKC12508(C). SKC12508(D), for example, identifies the price for the previously shipped 165 engineering RH1280B FPGAs, corrects the price of the QCI report, and shows the correct balance due of \$5,917,500.00.
- 23. BAE Systems completed all of its obligations under SKC12508(C) and/or SKC12508(D) no later than March 4, 2010, the date it furnished the QCI report to SpaceKey.
- 24. The total amount owed to BAE Systems under SKC12508(C) and/or SKC12508(D) is \$5,917,500.00. To date, BAE Systems has received payments from SpaceKey totaling only \$4,117,500.00. An outstanding balance of \$1,800,000.00 remains due and owing. SpaceKey has failed and refused to pay this balance.
- 25. When BAE Systems first launched the RH1280B program, BAE Systems believed that it would be able to manufacture the FPGAs with a TID of 300 KRAD.

- 26. BAE Systems was not able to manufacture the flight RH1280B FPGAs with a TID of 300 KRAD.
- 27. BAE Systems kept its customers, including Spacekey, apprised of its manufacturing process for the FPGAs and the radiation tolerance issue as it developed. In May 2009, for example, and prior to delivering any flight RH1280B FPGAs, BAE Systems notified SpaceKey that the flight RH1280B FPGAs that it had manufactured in its first production run met a specification of 50 KRAD TID. BAE Systems further notified SpaceKey that it planned to acquire equipment that would allow it to improve the TID tolerance for flight RH1280B FPGAs in a second production run. Following this notice, SpaceKey submitted revised purchase order SKC12508(C) to BAE Systems, which indicated that SpaceKey would accept 100 flight RH1280B FPGAs with 50 KRAD TID and 535 flight RH1280B FPGAs with 100 KRAD TID.
- All of the flight RH1280B FPGAs BAE Systems delivered to SpaceKey met the TID specifications which were contractually agreed to between BAE Systems and SpaceKey. Specifically, BAE Systems delivered to SpaceKey 100 flight RH1280B FPGAs that met a specification of 50 KRAD TID and 535 flight RH1280B FPGAs that met a specification of 100 KRAD TID. This was consistent with the requirements of purchase order SKC12508(C) and SKC12508(D).
- 29. BAE Systems has received no notice that any of the customers who purchased the flight RH1280B FPGAs from SpaceKey rejected them or returned them for any reasons relating to radiation tolerance issues.
- 30. In 2010, BAE Systems received notice from Actel.ru JSC (a customer that purchased 200 of the flight RH1280B FPGAs from SpaceKey) that four of the FPGAs failed during programming. Programming failure is not an uncommon occurrence with FPGAs and the

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failures have nothing to do with radiation tolerance specifications or performance. Actel.ru JSC

recently returned the four FPGAs that failed during programming to BAE Systems under

warranty for replacement. BAE Systems is honoring the warranty and it will be sending Actel.ru

JSC four new flight RH1280B FPGAs as replacements.

I DECLARE UNDER THE PAINS AND PENALTIES OF PERJURY THAT THE ABOVE STATEMENTS ARE TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND

BELIEF.

Date: 7/1/2011

/s/ David A. Rea

David A. Rea

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